

## ABSTRACT

An organic-inorganic hybrid material comprising a metal oxide and a chelating ligand is synthesized. The function of a coloring property, a light-emitting property, or  
5 semiconductivity of the organic-inorganic hybrid material can be controlled by chelating ligand. The organic-inorganic hybrid material is prepared by sol-gel method using sol which includes a metal alkoxide and/or a metal salt and a functional chelating agent